

Postexercise ECG Changes. The observations of (10) Blackburn et al. are very important because they relate to the incidence of myocardial ischemia in 10,260 men. That 519 subjects had positive ECG response should not deter from the significance of the investigation. The reference is actually an abstract which is not normally cited as a primary source of information. However the 1968 document is full of abstracts and personal communications.

Relation of "Positive" Postexercise Electrocardiographic Responses to Other Characteristics of Risk

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The electrocardiographic response to exercise has become a powerful tool for identifying greatly increased risk of acute coronary episodes in otherwise "healthy" individuals. It is now necessary to establish how much it really adds to information over and above already known factors of risk. This was first examined by a study of the interrelations of a "positive" exercise ECG response with other measurable physical characteristics and habits. It is best studied in natural populations which contain realistic proportions of "positive" and "negative" responders and broad ranges of characteristics. Here the frequency of 519 "positive" responses among 10,260 men aged 40 to 59 years was plotted according to increasing obesity, blood pressure, and serum cholesterol, and activity and smoking habits.

The test was a standard three-minute, constant-rate step, and criteria for "positive" tests were rigidly defined. The most important association was a linear relationship between frequency of "positive" ECG responses and level of systolic blood pressure ($P < 0.0001$ between lowest and highest pressure classes). No relation of exercise response to fatness was found through the bulk of the distribution, but among the upper 20% of men ranked by skinfold thickness the rate of "positive" responses was significantly greater ($P < 0.001$ between lowest and highest obesity classes). There was a decreasing rate of "positives" with increasing physical activity class and no relationship to serum cholesterol or smoking habit. Evaluation of the prognostic power of the exercise ECG requires, at the least, consideration of age, sex, blood pressure, and obesity.

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